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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/594,742  | 09/28/2006  | Shigeya Naritsuka    | 070456-0153         | 4940             |
| 20277 7590 07/26/2011<br>MCDERMOTT WILL & EMERY LLP<br>600 13TH STREET, N.W.<br>WASHINGTON, DC 20005-3096 |             |                      |                     |                  |
| EXAMINER  |             |                      |                     |                  |
| SAYADIAN, HIRAYR  |             |                      |                     |                  |
| ART UNIT  |             | PAPER NUMBER         |                     |                  |
| 2814  |             |                      |                     |                  |
| NOTIFICATION DATE   |             | DELIVERY MODE        |                     |                  |
| 07/26/2011  |             | ELECTRONIC           |                     |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mweipdocket@mwe.com

## DETAILED ADVISORY OFFICE ACTION

### Response to Arguments

1. The arguments in the 6/13/2011 "Reply" to the 2/15/2011 "Office Action" have been fully considered. These arguments however are not found persuasive.

The Reply recognizes that Tojo teaches a GaN ELO layer 2 (which Tojo explicitly teaches as being grown from a GaN buffer layer, see, for example, [0040]) and that Lo teaches using an AlGaAs buffer, when the substrate is GaP. The Reply then argues that Lo fails to teach the ELO AlGaAs layer.

It is noted that Tojo teaches the ELO GaN layer being grown from the GaN buffer layer to reduce defects by making the layer below the AL of good quality epitaxial layers, and Lo teaches using AlGaAs as the buffer material when the substrate is GaP and active layer is AlGaInP. Lo is not introduced as teaching the making of the ELO from AlGaAs; rather, Lo is introduced as teaching using AlGaAs as the proper buffer material when the substrate is GaP, which teaching motivates a person of ordinary skill in the art to modify Tojo by using AlGaAs as the buffer and ELO material of Tojo when the substrate is GaP, to match the specific AL used to obtain the desired wavelength.

Accordingly, rejecting the pending claims as being unpatentable over the prior art is proper. And the prior art rejections therefore are maintained.

## CONCLUSION

2. **The shortened statutory period for reply to this Office Action expires FOUR MONTHS from 2/15/2011, which is the mailing date of the Final Office Action.**

Extension of time for the period for reply may be obtained under 37 CFR § 1.136(a). **The maximum period for reply, however, is SIX MONTHS from 2/15/2011, which is the mailing date of the Final Office Action.**

Art Unit: 2814

Any inquiry concerning this communication or earlier communications from an Examiner should be directed to Examiner Hrayr A. Sayadian, at (571) 272-7779, on Monday through Friday, 7:30 am – 4:00 pm ET.

If attempts to reach Mr. Sayadian by telephone are unsuccessful, his supervisor, Supervisory Primary Examiner Wael Fahmy, can be reached at (571) 272-1705. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available only through Private PAIR. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. The Electronic Business Center (EBC) at (866) 217-9197 (toll-free) may answer questions on how to access the Private PAIR system.

/Hrayr A. Sayadian/

Primary Examiner, Art Unit 2814

1-571-272-7779